

## CLAIMS:

1. A wearable heart monitoring system for monitoring of a cardiac arrhythmia, said system comprising ECG sensors for providing patient heart data, a conditioning and interpreting circuitry for processing the heart data, alarm generation means for generating an alarm, characterized in that said conditioning and interpreting circuitry comprises a real-time  
5 evaluator for measuring and analyzing a histogram of a temporal distribution of an interval between successive corresponding characteristic peaks in an ECG spectrum during a plurality of successive heart cycles, the alarm generation means being arranged to generate an alarm based on the analysis of said histogram.
- 10 2. A system according to claim 1, characterized in that said system further comprises an RF-link for transmitting a further alarm to a remote monitoring station.
3. A system according to claims 1 or 2, characterized in that the ECG sensors are housed on an elastic belt.
- 15 4. A system according to claim 3 characterized in that the system comprises electrical wiring for arranging electrical connections of the monitoring system, said wiring being integrated in the belt.
- 20 5. A system according to claim 4, characterized in that a wire material has a substantially the same elasticity as a material constituting the elastic belt.
6. A system according to claim 5, characterized in that said system comprises at least two electrodes.
- 25 7. A monitoring system according to one of the preceding claims, characterized in that said system further comprises a motion sensor.

8. A method for alerting a patient for an substantial probability of a cardiac arrest event, said method being based on results of continuous monitoring of a cardiac activity by means of a cardiac monitoring system comprising a set of electrodes, a conditioning and interpreting circuitry and alarm generation means, characterized in that said method

5 comprises the steps of:

- performing a continuous acquisition of data related to the cardiac activity by means of the electrodes;

- processing the data for extracting a characteristic parameter by means of the conditioning and interpreting circuitry;

10 - performing a classification of the extracted characteristic parameter;

- generating an alarm with alarm means in case the characteristic parameters falls within an alarm-relevant category.

9. A method for alerting a patient for an substantial probability of a cardiac arrest event according to claim 8, characterized in, that an alarm with a high priority is generated in case of a sudden cardiac arrest.

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